all forms. Unfortunately, the ratio of benefits to costs for such enhancements is very low and would serve only as a Band-Aid approach to solving the program and calculation complexity problem.

Responsiveness of PwC and RHCD to Applicants and Vendors

There is evidence that PwC and RHCD have worked with and listened to the concerns of stakeholders. There have been many issues and problems to resolve in this first Program cycle. The next application cycle should be easier for those who participated in the first round and it should be easier for the staff. The Program director should have the responsibility to create awareness of the Program and to work effectively with stakeholders.

Effectiveness of Outsourced Services

PwC

PwC appears to be performing its job as required. The staff appears well trained and is helpful according to survey respondents. The real issue with PwC is whether RHCD should continue with such a complex program and infrastructure and whether some of the functions could be brought in-house and accomplished less expensively. The barrier to PwC issuing commitment letters at this time is the pending predisbursement audit to determine whether its procedures are adequate to prevent against waste, fraud, and abuse.

NOSORH

The effectiveness of the NOSORH outreach outsourcing is still uncertain pending its report. The only barrier that can be identified thus far is the timing of the efforts represented in the mini-grants. Because of the late start date of the mini-grants, the effects of this outreach will be minimal for 1998. The benefit to using NOSORH for outreach is its broad reach to the rural community.

NTCA

The NTCA outreach effort appears to be adequate and in line with the contract expectations, even if a little behind schedule. Again, timing may be the only barrier with the NTCA effort. NTCA has informed the RHCD that it will not be able to deliver 100 commitments from eligible telecommunications providers.

Calculation of Urban Rate Differential

The urban-rural rate differential calculation consumes a significant amount of resources and if changed would result in significant efficiencies in the Program. The current method is too complex, too time consuming, and is not as precise as one might expect given the effort that goes into it. Solutions that uphold the mission of the Act of 1996 are the following:

a. Calculate rate differential based on mileage differential between rural and urban location. Apply a discount to mileage based part of rate. For satellite or other non-mileage based service, calculate actual differential.

b. Assign the calculation of the differential to the ETC and require the ETC to report on the results, subject to random audits. Since the ETCs are already required to complete Form 468 and the worksheet, the increased level of effort should not be great compared to the timesaving for the RHCPs, the RHCD, and PwC. The ETCs may not support this change but this change would distribute the effort to the organizations that are best equipped to make these calculations.

c. Have the RHCD and PwC create a proxy percentage discount for each state based on the average differences in rural and urban rates for representative services in that state. Then apply the discount to all services that qualify. This percentage would have to be reviewed annually for each state.

d. Request the assistance of the state commissions to calculate the statewide average rate differences.

Lack of Effective Communications

USAC and its divisions have an obligation to work closely with the Commission and to supply information on an ongoing basis. Effective communications between the Commission and USAC is critically important. The RHCD and the Commission staff should work together to identify methods for decreasing the amount of time taken to resolve issues, recognizing the constraints of the regulatory process. The process of identifying issues in the first Program year has been ongoing. The RHCD was not able to identify all Program issues until applications were processed and problems came to light. This led to a steady stream of requests for clarification over the year. It is anticipated that there will be fewer issues in the second year since unknown problems are less likely to surface, and other clarifications should be minor if the Program is unchanged; however, if the Program is changed significantly as recommended in this report, there may be several clarification requests. Any issues that arise should be identified and all information or data related to the issue should be supplied to the Commission as soon as possible. Effective communication between

Commission staff and RHCD is absolutely essential to success in resolving issues and in awarding support. Improved communication should be a top priority. There are also barriers to effective communication within the RHCP system. At several rural health care facilities resources are stretched so thin that there is often little time to become familiar with the complexities of the Program and to share information about the Program.

Effective communication is not only necessary between the Commission and USAC; it is also vital between the Commission, USAC, the intended beneficiaries of the Program, RHCPs, and ETCs. It is important to continue to strengthen the lines of communication between all of these entities. Additionally, the RHCPs should continue to build on the communication network they have established within the rural health community regarding this Program. A communication network about the Program that works at the national level and the local RHCP level is necessary. All parties working together can help ensure that the best program possible is made available for RHCPs.

Lack of Program Consolidation

Consolidation of programs with similar processes could reduce administrative expenses and may serve customers better. This should be explored after current contracts expire.

Policy Barriers

ETC Requirement

The current ETC requirement was mentioned by some participants in our survey as a barrier to receiving adequate support to make their participation worthwhile. This is most acute in Alaska. There has been a solution proposed for this barrier in Alaska. If this solution works it may also be helpful in other states. To the extent the Commission is able to extend support to services provided by non-ETCs, it would increase services funded and would help broaden participation in the Program. Although the impact of a change in ETC status does not significantly impact demand projections for 1999, the issue may increase the number of applicants. The RHCD estimates that as many as 35 percent of RHCPs may be adversely affected and therefore they do not complete the application process when they realize that the non-ETC support cannot be included. This may explain some of the difference between Form 465 filings and Forms 466/468 submissions.

Third-Party Billing

The original Program design did not allow payment to third parties, although the Act of 1996 did contemplate it. Over the course of the Program year, the RHCD found that this affected a significant portion of RHCPs. This barrier is in the resolution stage.

Posting/Contracting Requirement

The posting requirement was included in the Program to take advantage of the competitive providers of telecommunications services for RHCPs. However, competition has not penetrated many rural areas. There is no evidence that the posting has led to competitive offers to date, with the exception of the resale of long-distance for the Alaska sites.

Level of Money Available per Site

Some survey respondents cited the level of support as a barrier to participation. They were interested in support for the IXC portion of their bills and for terminal equipment and computers. Support for the IXC portion is related to the ETC requirement as discussed above as most long-distance companies are not ETCs. The Program was not originally intended to support terminal equipment. Given the low level of demand the concern about limiting the amount per site may not be as critical as originally believed. Changes to this policy that would include terminal equipment and other issues raised by RHCPs would be a major departure from the original Program but would increase participation.

Types of Services Included in Program

While a number of services are included in the Program such as plain old telephone service (POTS), ISDN, Frame Relay, T-1, 56k, Centrex, and toll charges for Internet service providers, actual support is limited to the portions of those services with a mileage component which is provided by the ETCs. RHCD staff has found that POTS rates are generally the same in rural and urban areas and consequently are not eligible for support under this Program. Support for ISDN, Frame Relay, and Centrex is limited to the mileage-based link extension. In the case of Internet service providers, service is generally provided on a toll-free basis, so actual support is minimal.

Given the goals of the Act of 1996 to put RHCPs on an equal footing with urban counterparts with respect to telecommunications rates, it seems that rates are more equal than anticipated, at least regarding basic service. This could be interpreted by concluding that the current access charge policy and the High Cost Universal Service Program have helped to achieve this goal. Alternatively, it could be viewed as an opportunity to expand the reach of the Program given the unanticipated availability of unused funds.

RHCPs Do Not Include Rural Nursing Homes, Hospices, Emergency Medical Service Facilities, Community Health Centers, or Long-Term Care Facilities

RHCPs identified this as a barrier to more widespread participationn in the Program. Given the current size of the Program, the addition of these facilities would not jeopardize funding for other eligible providers. The issue is whether these facilities qualify within the current statutory framework. RHCPs argue that the Commission has too narrowly defined rural health care clinics and that a broader definition would be consistent with the Act of 1996 and would qualify more facilities as RHCPs.

Complexity of the Urban-Rural Rate Differentials

This is one of the most significant barriers in the current Program and should be considered carefully. The cost of making the calculations is significant especially compared to the individual awards which result and the precision achieved. Simplification that meets the intent of the Act of 1996 should be accomplished as soon as possible. A decision on this item should be made prior to any rebid for outsource services.

Resale Prohibitions

RHCPs in rural states may bring the only advanced telecommunications network to their communities. As a result, the health care provider may receive requests throughout the year from entities that want to utilize the network for their own use (for example, the National Guard for training workshops, the state Girl Scout office for outreach, and the University for

classes). Unless the RHCPs identify all of the "users" as part of a consortium up front, they may not pass along any portion of the costs of using their network to these other entities because it is considered "resale." The RHCPs do not know up front who the users may be throughout the year, so it is impossible to identify each of them in the consortium.

The RHCPs recommend that the Commission develop an accounting mechanism that would allow RHCPs to identify these community needs and costs (and distinguish them from a telecommunications resale definition) and allow the RHCPs to subtract out these non-eligible service costs without losing the ability to get funding.

The Hawaii Problem

Many states such as Hawaii, other islands, and some Eastern states will not receive much, if any support, under the current Program rules. These states have rate structures in place which limit urban-rural rated differentials for basic service and distance sensitive charges fall within the MAD and are thus not supportable. Also, like Alaska, satellite services are often ineligible because they are not provided by a ETC.

Other Barriers

RHCPs Not Interested or Not Informed

Even where RHCPs may have been included in outreach, the message did not always reach the decision-maker or there was no action due to lack of interest. Some of the lack of interest is linked to the lack of progress on a telemedicine program or to a small staff stretched too thin to think about telemedicine. This lack of interest may also be attributable to the complexity of the Program. In other instances, the outreach efforts may not have reached interested RHCPs.

RHCPs Do Not Have Equipment Necessary for Telemedicine

Because equipment purchases for telemedicine can be a major investment, some smaller sites simply cannot afford to acquire equipment without a grant or other support. The monthly cost of telecommunications service may not be as significant a barrier as the initial outlay for equipment. Partnering with other organizations that have money available for equipment could help to remove this barrier.

POTS May Provide Adequate Level of Service

While POTS can be supported, it is less likely to have an urban-rural rate difference than other services. For some RHCPs, POTS is providing a basic level of telemedicine service but the service receives no support. Other RHCPs have identified that POTS is not adequate and that there is a need

for advanced services and high speed Internet access. (See the items below on Infrastructure and Internet Access.)

Telecommunications Providers Not Supportive

The evidence for this barrier is primarily from survey respondents who complained about slowness or non-responsiveness of their provider. The carriers may not see much benefit in participating. However, other carriers indicated that they have spent an enormous amount of time and money to work with the RHCPs. In fact, some stated that they must also change legacy computer systems to handle this Program with no recovery of the costs.

RHCPs Have Toll-Free Internet Access

Toll-free Internet access is a goal of the Program. RHCPs who have toll-free access could be viewed as a success because of industry deployment of local access to the Internet. However, some providers include other, non-toll based charges to the monthly bill, which cannot be supported. While this may be a minor barrier to use of the Internet, it appears that in most areas of the country Internet access is not a barrier to telemedicine programs. Many telemedicine applications are possible over the Internet with additional bandwidth. The most significant barrier to getting additional bandwidth to rural locations is the current infrastructure and the cost.

Not Worth the Effort to RHCPs

The small size of the some of the survey respondents led RHCPs to believe that filling out the forms was not worth the effort. Process and form simplification could address this.

Infrastructure Not Available Today

The telecommunications infrastructure for rural telemedicine is not universally available. Where it is not, the level of support from the current Program is not sufficient to spur that development in many areas. This is a barrier to the use of the Internet for many applications.

Lack of Local Competition

This is a barrier that was not anticipated at the time of the Act of 1996. The posting requirement, has not resulted in bringing additional competition to rural areas, however it has helped limit the cost of resold long-distance in Alaska. Posting could be waived where there is no ability to resell (currently only RBOC territories) and where there are no competitive local exchange carrires (CLECS), so that support can be initiated sooner.

Limited Patient Volume and Demand

Many patients may be unaware of telemedicine and, where there is knowledge and interest, there may be insufficient volume to justify investment in equipment.

Lack of Physician Interest

Some physicians may resist change and adoption of telemedicine. Some may be uncomfortable with new technology.

Lack of Medicare Reimbursements for Telemedicine Consultations Limits Interest in Telemedicine Investment

Resolution of this issue will provide an incentive for more growth in telemedicine. Effective January 1, 1999, Medicare began coverage for teleconsultation in rural health professional shortage areas (about 20 percent of "all" rural areas as covered by this Program), and 11 states now cover some aspect of telemedicine in their Medicaid programs. Although Medicare coverage may increase demand for the Program, several health care professionals suggested that relatively few teleconsultations will qualify for reimbursement under the Medicare rules, and the majority of demand for Medicaid reimbursement will be in urban areas. Near-term impacts appear to be minimal, though more ubiquitous coverage for telemedicine will increase the demand for the Program. USAC and the Commission should work with private insurers as well.

SECTION VII

Analysis of Demand and Administrative Costs

Demand

Although the RHCD does not have a database of eligible rural and non-profit providers, the data collected by ATSP for 1998 reported 157 networks covering 1,345 sites for 1998. Academic medical centers and hospital/health networks make up the bulk of the networks. Grants, internal funding, and state contracts/subsidies are the primary source of the funding. The majority of the networks report that their systems are used primarily for clinical uses. Several of the respondents were for-profit or private and a number of respondents were in urban areas. Only about 40 percent of the respondents used T-1 type, point-to-point, telecommunications service that would be eligible to receive Program support. While the ATSP survey does not provide a list of available participants, it is the best data there is on telemedicine participation. The only other data available is the fact that 2,466 sites filed a Form 465 in the first year; however, most of those sites did not complete the application process, and many are duplicate applications.

Outreach efforts in the second Program year may help to reach those providers that are eligible and have not participated. Outreach should include targeted mailings to 1998 RHCPs who filed Form 465s. Many did not continue with the other forms for a variety of reasons. One reason that was repeated by many of those surveyed for this report was that they were not quite ready yet with their telemedicine program or with terminal equipment. A letter of encouragement to participate in the Program with information about program changes and about actual awards such as number of total awards, average award, and awards by state might encourage renewed interest and encourage some growth in the Program.

Estimated Demand for Rural Health Care Program: Year One – 18 months (January 1, 1998 - June 30, 1999)

	Applicant Pool	Form 465	Sites	466/468 Packets	Support Amount
	Form 465 applications received and posted as of 2/15/99[12]	**1,058**	**2,466**	**N/A**	**Not estimable**
1	Support amounts as of 2/15/99 based on 466/468 packets reviewed[13]		105	113	$605,000[14]
2	Estimated support amount based on 466/468 packets in review but incomplete[15]		225	290	$830,000
3	Estimated support amount based on 466/468 packets estimated to be received between 2/15/99 and 6/30/99[16]		155	200	$570,000
4	Estimated support amount increment for RHCPs with existing service acquired under a contract allowing retroactive support prior to posting[17]				$990,000
5	Estimated Alaska 466/468 completed packets by 6/30/99[18]		12	20	$120,000
	TOTAL		**497**	**623**	**$3,115,000**

[12] Between 5/1/98 and 2/15/99, 1,425 RHCPs filed Form 465 (covering 3,127 sites). Of these applications, 1,058 (2,466 sites) were posted for telco bids on the RHCD web site, 215 (392 sites) are currently "under review" by RHCD. Issues affecting status include impact of ETC requirement, missing or incomplete information, staff changes at RHCPs, etc. If issues are resolved, these applications could be posted. Applications for 40 RHCPs (46 sites) were denied because they were not rural or were not eligible health care provider types. One hundred twelve applications covering 223 sites are considered inactive because they were duplicates or aborted electronic submissions. Of the 1,058 posted applications, 897 were from single-site RHCPs, while 161 were from consortiums, which represented 1,569 total sites, an average of about 10 sites per consortium.

[13] Forms 466/468 Packets are required to be submitted by the RHCPs (466) and the telcos (468) for each billed segment of a circuit. Thus, RHCD may receive multiple 466/468 packets for a single site.

[14] Assumes most RHCPs acquired service under a tariff and support began on day 29 after posting.

[15] Assumes 65 percent of packets are for T-1 type service at an average monthly support amount of $555 and 35 percent are non-T-1 type service at an average monthly support amount of $76. This is consistent with the experience for applications that have been reviewed.

[16] Assumes historical average of 40 466/468 packets received by RHCD per month times 4 ½ months in balance of RHCD 1998 Fund Year equaling 177 plus 23 packets received after June for a total of 200 packets at the average rate.

[17] Assumes 85 percent of 1998 packets (excluding Alaska) receive an additional five months of support at a weighted average.

[18] As of 2/15/99, Form 465s covering 224 sites have been posted for Alaska. To date, nine 466/468 packets have been received covering seven sites. Only one packet contains complete support information, which is $11,000 per month. This support amount is included in line 2. RHCD assumes 20 completed packets by March 30, 1999, from Alaska allowing 3 months of 1998 support. In addition, it assumes Universal Service cash flow to ETC resolved. New service in Alaska is primarily satellite based and, therefore, not directly mileage sensitive. Hence, the subsidy is derived from the difference between the urban rate set by RHCD and the rate charged for the service. RHCD expects no more than 20 T-1 type circuits costing approximately $13,000 per month offset by an urban rate of approximately $900 per month. Based on applications received to date and discussions with the Alaska PUC, RHCD believes that the balance of services in Alaska will be dedicated or frame relay circuits with a bandwidth of 56k to 128k. These services will have a rural rate of approximately $500 to $3,000 and an urban rate of approximately $130 to $500. Therefore, RHCD estimates $2,000 as the average monthly support amount in Alaska.

The data clearly show that while in the first year applicants were represented by 2,466 sites, only 497 sites appear to be qualified to receive support. Based on discussions with RHCPs, many filed Form 465s just to get their foot in the door, in case their telemedicine programs were ready in time to receive support. Others filed the Form 465 and found later that the potential level of support did not make further participation worthwhile and some simply lost track of the application process through staff turnover or lack of interest.

The Year 1 Estimated Program Demand table builds the estimate of total support to be paid out according to estimates of packets to be reviewed, packets to be filed, resolution of the contract tariff issue, and resolution of issues in Alaska. If the contract issue were resolved favorably from the point of view of the RHCPs, additional retroactive support of $990,000 would be expected. Resolution of issues specific to Alaska will require an additional $120,000 in support in the 1998 Program year. The bottom line is that the Program estimate of 1998 support is $3,115,000 for 500 sites, or an average of $6230 per site for the 18-month period.

For the 1999 plan year, similar estimates can be made based on the 1998 experience. The following chart shows the applicant and support estimates of the second plan year.

Estimated Program Demand for Rural Health Care Program: Year Two - 12 months (July 1, 1999 – June 30, 2000)

	Applicant Pool	Form 465	Sites	466/468 Packets	Support Amount
1	Lower 48 States[19]	535	535	690	$3,210,000
2	Alaska[20]	175	175	200	$4,800,000
3	ETCs[21]	214	214	275	$1,280,000
	TOTAL	**924**	**924**	**1165**	**$9,290,000**

The projections for the 1999 plan year represent a major increase over the 1998 estimates. This is driven, in large part, by activity in Alaska and on the additional support that would be required if the ETC requirement is modified. It also represents some modest growth over the number of sites in the lower 48 states that participate in the Program. Without the ETC change or a working model for resale,

[19] Assumes historical average cost and service type mix. Assumes growth in packets of 15 percent over 1998 year.

[20] Assume a total of 175 sites (200 packets) from Alaska in 1999 at historical average cost and service type cost.

[21] RHCD does not have data to calculate the impact that eliminating the ETC requirement would have on either the number of eligible RHCPs who would apply for support or dollars of support. This information is not contained on Form 465 and applicants affected by the requirement likely do not submit 466/468 packets. However, based on the Universal Service Fund Assessment Results listserv managed by the University of Missouri Health Sciences Center, 71 percent of the 21 responding telemedicine programs felt that exclusion of the long-distance companies from the USF program would affect their programs, 10 percent were not sure how this would impact their program, and 19 percent said the exclusion of the IXCs would have no impact. Eighty-five of the 139 T-1 lines reported being serviced by long-distance companies. RHCD believes this data overstates the program since the respondents may over-represent T-1 dependent networks that are more likely to utilize IXCs than switched service offerings. To be conservative, the percentage of services by IXCs was reduced from 60 to 40 percent. Assuming 40 percent of the existing support in the lower 48 ($3.210 million), RHCD estimates an additional $1.28 million could be provided to new applicants currently affected by the ETC requirement. It was assumed that the "Alaska solution" is operable for ETC requirement. USAC is aware of several large networks totaling over 40 sites that would be eligible this year but for the ETC requirement.

the Program will provide about $8 million in support. If the ETC requirement is relaxed, the total Program could reach $9 million. Because the Alaska estimates are the most sensitive to incorrect estimations due to lack of data, the Program could be higher or lower than that shown above. The sites and Form 465 estimates are equal due to a 1999 Program change that requires each consortium to file a separate Form 465.

Absent modification of current Commission policy, demand growth will come from small rural providers that will benefit from the simplification of the forms and the process and from the natural growth in networks thereby increasing the base of eligible providers.

Administrative Costs

Reductions in administrative costs are necessary to bring Program costs in line with Program demand. Some reductions are possible in the short term; however, changes in the Program are necessary to bring costs to a level that is consistent with the public interest. Administrative costs should move toward comparable benchmark figures for government foundation groups. The government foundation group shows a top level of administrative costs of 26 percent of program size. The RHCD should take steps immediately to move toward this goal in the short term. Long-term, the organization and the Commission should work to bring administrative costs within the one to five percent ranges. This recognizes that a minimum level of administrative costs is necessary regardless of fund size. The benchmark data indicates a base level of $1-2 million.

Because there is a fundamental difference in the infrastructure created for a $400 million program serving approximately 12,000 applicants and a program that is less than $10 million serving approximately only 1,000 applicants, it will take time and rule changes to modify the current system and to replace it with a simpler method, while at the same time not further disrupting the functions of the Program.[22] For 1998, it is very likely that the administrative costs will be higher than the support payments. If this is a $10 million dollar program going forward, 25 percent or about $2.5 million should be a cost cap. Based on the 1998 budget and the initial 1999 budget a movement to the 25 percent benchmark would require a budget cut of about 56 percent. It is not possible to reach this level of reduction in the short term and still comply with the rules that are in place today. However, USAC will decrease expenses wherever possible.

The only way administrative costs can be reduced significantly in the short term is to extend the current funding cycle and delay the opening of the second application cycle until the Program is simplified. We have shown estimated administrative costs for each quarter with and without this option.

The 1998 and 1999 budgets are comprised primarily of four cost categories. The effort to reduce costs should focus on those four areas that contribute approximately

[22] The best information available at that time indicated that approximately 12,000 RHCPs would be eligible with a demand of approximately $400 million. *Order*, 12 FCC Rcd 8776, para. 706.

90 percent of total costs: Outsourcing, Billing and Collections, Compensation, and Outreach. These costs will have to be cut to make significant movement toward the benchmarks. There are three contracts in place in the short-term: the contract with PwC that runs until June 1999 and two outreach contracts (NTCA and NOSORH) that will be concluded within a few months.

Outsourcing

The PwC contract represents almost 50 percent of total Program costs.

There are several cost cutting options that could be taken from July 1, 1999, to December 31, 1999:

PwC Reductions in Annual Expense:

Expense category	Option	Annual Cost Saving
Web site maintenance	USAC performs @ $6,000/mo. Compared to the current $22,000/mo	$180,000
Invoicing	Drop ½ time team lead	$138,000
Forms Processing	Drop analysts	$193,800
Urban rates	Drop analyst	$ 58,140
Total		**$569,940**

When the current contract expires on June 30, 1999, the RHCD should take the web site development and maintenance in-house and share USAC resources. This could save $180,000 on an annual basis beginning in July.

The invoicing system created for the Program, RIBS, is very costly to operate. USAC should consider whether it is cost effective to eliminate this Program even though a significant amount of money has been spent on its development. USAC should eliminate the half-time PwC team leader for this function once development is completed and this would save approximately $138,000 on an annual basis.

After the 1998 and 1999 Program year overlap is complete in July, consideration should be given to decreasing PwC analysts dedicated to handling applications for estimated savings of $193,800.

Prior to any simplifications to the calculation of urban-rural rates, part of an analyst could be cut on the rate calculation function for annual cost savings of $58,140.

The $569,940 savings are almost 25 percent of the current contract, and there may be tradeoffs in quality. This analysis is also subject to PwC agreeing to such a modification. PwC has not indicated whether it would be willing to go forward after June 30 under the above scenario. Alternatively, the RHCD could evaluate what activities can be handled in-house by USAC and re-bid the activities to be outsourced.

If the process is not simplified, USAC, at a minimum, should consider every opportunity to consolidate RHCD functions with other programs. USAC has combined some functions as a result of the merger; however, additional program and process consolidation could save additional money by combining similar process infrastructures. This may include consolidation of vendor support for web site maintenance, provision of help desk services, application handling, and outreach. These consolidations should be considered as soon as possible. In fact, the best course of action may be to start with process consolidations where competitive bidding and comparison to bringing processes in-house can be used to optimize outsourced services for two or three divisions.

If the process is simplified outside vendors should be eliminated. RHCD could operate the entire Program in-house with additional resources that will be more cost effective than PwC resources. These positions would not require high level salaries. It is estimated that this approach would allow USAC to bring administrative costs to within five to ten percent of total costs of the Program.

Billing and Collections

The Commission Order approving the creation of USAC established an allocation factor for billing, collections, and a portion of disbursement costs as a simple 25 percent. This allocation is not unreasonable and may have been the best allocator based on development costs for 1998 and early 1999; however, on a going-forward basis, it may make sense to consider a different allocator that is based on the actual realized program size. Equal allocations for the balance of 1999 will allocate too much cost to the Program. This portion of the allocations should be revised to one that is based on volume of disbursements. While this will not result in a reduction in overall USAC expenses, it will more accurately reflect cost causation among the programs. If allocations were based on program size for all four programs, the RHCD represents a 0.1 percent of the total USAC programs. Using this figure to allocate costs would reduce the charges from $739,100 to $3,000, an annual saving of about $736,100. This would increase the level of billing and collection costs allocated to each of the other three universal service programs proportionate with their size.

Compensation

Compensation must be reviewed with the other major costs in order to decrease administrative costs. With the merger, RHCD's directly assigned staff fell from 4.0 to 2.6 FTE. Personnel were moved to the corporate level to provide services to all four programs. These personnel along with other personnel that moved to the corporate level are allocated indirectly to each of the four programs. This allocation of USAC support raises the comparable FTE for the Program by 1.4 FTE. Currently, the compensation costs charged to the Program include the President, the Director of Operations and Systems, a portion of the Chief Executive Officer, a portion

of the Vice President of Operations, a portion of the Vice President of External Communications, a portion of the Public Information Manager, and a portion of other support positions.

Given the expected size of the Program, three changes in compensation should be considered. First, the indirect allocation should be reviewed to see if another allocation method would be more consistent with the level of resources dedicated to this Program. One method would be to assign the percentage of shared staff to RHCD based on its Program size relative to the others or based on its number of participants compared to the other programs. This would result in less indirect costs allocated to the Program. Currently 24 percent of common compensation costs are allocated to the Program and if fund size were used as the allocator that would be reduced to 0.1 percent. This does not reduce USAC expenses but it may more equitably assign costs among programs. Second, USAC should reassign the support position that is allocated 60 percent to the Program to USAC corporate. This position would then be allocated to the RHCD based on the allocator discussed above. These two recommendations will reduce the level of compensation allocated to the Program by $70,000.

The salaries and benefits of the division president and the director make up the balance of the compensation. USAC will eliminate the position of President of the RHCD.

In reviewing the current structure, USAC is set up with three program divisions and an operational division. The three program divisions are Rural Health Care (RHCD), Schools and Libraries (SLD), and High Cost Low Income (HCLID). SLD manages one program with a current cap of $1.3 billion and 30,000 applicants. HCLID manages two programs with a total cost of $1.7 billion for High Cost and 1,400 carriers, and $500 million for Low Income and about 1,400 carriers also. The RHCD manages one program with a total budget of $14 million and service to 924 sites. USAC cannot afford the level of management assigned directly to the RHCD given the level of demand and the need to reduce administrative costs. Additional resources may be necessary, but these resources should be middle-level professionals rather than top-level management. This analysis supports the decision to elimate the position of President and reduce compensation and benefit costs by approximately $180,000.

The value of all these reductions would provide a salary reduction of $298,000 per year if the allocation changes were made and if one position were eliminated.

If processes are consolidated, it makes sense to merge the RHCD into one of the other divisions. The two possibilities are to combine RHCD with either SLD or HCLID. Currently the SLD has processes that are most similar to RHCD; however, if the process is significantly simplified in the future, it may look more like the Low Income Program. Based on the current structure of the Program, the most logical combination is likely to be the SLD and the

RHCD. Both are set up to benefit public institutions that are dependent on telecommunications services. Philosophically, the two could be combined and processes would benefit from the synergies of dealing with similar issues and questions. Helpdesk service could be combined and web site development could be developed and maintained in parallel. This would eliminate the need for a Division President and would allow for the combining of other resources. However, if there are major simplifications to the Program, it may be more similar to the Low Income Program and the HCLID may be the most logical combination.

The Board recognizes the importance of the success for all programs and understands that an ineffective program reflects poorly on all USAC programs. The costs allocated to the Program as a result of having a separate Rural Health Care Committee are insignificant and it is recommended that the separate Committee be retained. Keeping the Rural Health Care Committee of the Board will help to provide visibility for the Program at the Board level, and will help to mitigate the impact of any division consolidation.

Outreach

No further contracts should be awarded to outsource the outreach effort. Outreach should now be performed in-house and should continue to collaborate with outside organizations, private and public. This effort, however, will not save much money in the 1999 year since no further contracts were contemplated.

The budget for the fourth quarter should be reduced to the level of the third quarter. Care should be taken to make sure those efforts produce measurable results. A plan should also be put in place for outreach during the 1999 plan year.

The following chart summarizes the range of proposed cost reductions for the July 1, 1999, to December 31, 1999.

Summary of Proposed RHCD Cost Reductions for 1999 (Annualized Estimates)

Cost Item	Range of Net Reductions
Outsourcing: PwC	$569,940
Billing and Collection	$736,100
Compensation	$10,000 to $298,000
Outreach	$24,500
Total	Up to $ 1,628,540

If all of these decreases were implemented, it would bring administrative costs allocated to the RHCD to a much lower level for the 1999 plan year. However, a majority of these savings would only be realized for the second half of the year. Estimated 1999 administrative costs, assuming the current first quarter budget, a revised second quarter budget adjusted for compensation savings, and six months of

cost savings identified above, would be approximately 35 percent of the projected 1999 funding level.

Additional reductions in costs at or slightly below the high range of the benchmark study contained herein can be made only if simplification steps are taken.

USAC will continue to look for methods for consolidating functions to save money and to help serve customers better and for methods to simplify the process within the current rules of the Program. In order to significantly reduce costs, USAC recommends the process changes included in this report and requests that the Commission considers delaying the start of the second application cycle until improvements are made.

The estimated administrative costs for 1999 are included as **Appendix A.**

SECTION VIII

Conclusion

The demand for this Program in the near term, without significant policy revision, will likely not exceed $10,000,000. Administrative costs must be brought in line with the size of the Program and simplification of the Program is needed to accomplish that goal.

In hindsight, the structure of the Program and the systems developed may have been "overkill," given a successful annual application rate of less than 1,000 sites. However, the actions taken by the Commission in the design of the Program and by the original RHCC Board to create a program, which could handle the anticipated volume of applicants, the anticipated level of funds, and the requirements of the invoice and billing system, were reasonable and prudent at the time they were made.

APPENDIX A

Estimated Administrative Costs for 1999

Option 1

Projections for 1999 RHCD Administrative Costs to the Program without Simplifications and without a Delay of the Second Year Funding Cycle (Thousands of Dollars)

ITEM	99 Q1	99 Q2	99 Q3	99 Q4	99 TOTAL
Compensation	100	100	100	100	400
Travel	5	5	5	5	20
Mailings	3	3	2.4	2.4	10.8
Audit		40			40
Tel	5	5	5	5	20
Taxes	2	2	2	2	8
Misc.	6	6	6	6	24
PwC	504	558	492	492	2046
Outreach	200	150	10.5	35	395.5
Total Direct	**825**	**869**	**622.9**	**647.4**	**2964.3**
USAC Support	120.6	121.7	120.4	118.1	480.8
Billing and Collection	183.1	182.8	187.8	185.4	739.1
Total RHCD Prior to Adjustments	**1128.7**	**1173.5**	**931.1**	**950.9**	**4184.2**
Change in allocation of USAC Support (Compensation)		(7.7)	(7.8)	(7.7)	(23.2)
Reassignment of the Support Position to USAC Support		(9.8)	(9.8)	(9.8)	(29.4)
Elimination of the President Position (Compensation)		(47.5)	(47.5)	(47.5)	(142.5)
Adjust Travel based on Elimination of President		(3)	(3)	(3)	(9)
Adjust Telephone based on Elimination of President		(3)	(3)	(3)	(9)
Adjust Miscellaneous based on Elimination of President		(3.5)	(3.5)	(3.5)	(3.5)
Change in Allocation of Billing and Collection			(184)	(184)	(368)
PwC			(142.5)	(142.5)	(285)
Outreach				(24.5)	(24.5)
Adjustment to Tax Estimate	(1)	(1)	(1)	(1)	(4)
TOTAL Revised Administrative Costs	**1127.7**	**1098**	**529**	**524.4**	**3279.1**
Percent Change	**-**	**(6.4)**	**(43.2)**	**(44.9)**	**(21.6)**

Option 2

Projections for 1999 RHCD Administrative Costs to the Program with Simplifications and without a Delay of the Second Year Funding Cycle (Thousands of Dollars)

ITEM	99 Q1	99 Q2	99 Q3	99 Q4	99 Total
Compensation	100	100	100	100	400
Travel	5	5	5	5	20
Mailings	3	3	2.4	2.4	10.8
Audit		40			40
Tel	5	5	5	5	20
Taxes	2	2	2	2	8
Misc.	6	6	6	6	24
PwC	504	558	492	492	2046
Outreach	200	150	10.5	35	395.5
Total Direct	**825**	**869**	**622.9**	**647.4**	**2964.3**
USAC Support	120.6	121.7	120.4	118.1	480.8
Billing and Collection	183.1	182.8	187.8	185.4	739.1
Total RCHD Prior to Adjustments	**1128.7**	**1173.5**	**931.1**	**950.9**	**4184.2**
Change in allocation of USAC Support (Compensation)		(7.7)	(7.8)	(7.7)	(23.2)
Reassignment of the Support Position to USAC Support		(9.8)	(9.8)	(9.8)	(29.4)
Elimination of the President Position (Compensation)		(47.5)	(47.5)	(47.5)	(142.5)
Adjust Overhead based on the Elimination of the President[23]		(9.5)	(9.5)	(9.5)	(28.5)
Change in Allocation of Billing and Collection Costs			(184)	(184)	(368)
PwC			(142.5)	(312)[24]	(454.5)
Outreach				(24.5)	(24.5)
Adjust to Tax Estimate	(1)	(1)	(1)	(1)	(4)
Cost to Bring the Web site in House				18	18
Additional Staff and Miscellaneous Expenses to Process Applications in House				50[25]	50
Start up costs for new program				300	300
TOTAL Revised Administrative Costs	**1127.7**	**1098**	**529**	**722.9**	**3477.6**
Percent Change	**-**	**(6.4)**	**(43.2)**	**(24.0)**	**(16.9)**

[23] Overhead adjustments are detailed under Option 1.

[24] Assumes a transition to complete the review of first year applications at $60,000 per month.

[25] Assumes four analysts at $35,000 plus overheads. This also assumes a simplified application and invoicing process.

Option 3

Projections for 1999 RHCD Administrative Costs to the Program with Simplifications and with a Delay of the Second Year Funding Cycle (Thousands of Dollars)

ITEM	99 Q1	99 Q2	99 Q3	99 Q4	99 Total
Compensation	100	100	100	100	400
Travel	5	5	5	5	20
Mailings	3	3	2.4	2.4	10.8
Audit		40			40
Tel	5	5	5	5	20
Taxes	2	2	2	2	8
Misc.	6	6	6	6	24
PwC	504	558	492	492	2046
Outsourcing Outreach	200	150	10.5	35	395.5
Total Direct	**825**	**869**	**622.9**	**647.4**	**2964.3**
UASC Support	120.6	121.7	120.4	118.1	480.8
Billing and Collection	183.1	182.8	187.8	185.4	739.1
Total RCHD Prior to Adjustments	**1128.7**	**1173.5**	**931.1**	**950.9**	**4184.2**
Change in allocation of USAC Support (Compensation)		(7.7)	(7.8)	(7.7)	(23.2)
Reassignment of the Support Position to USAC Support		(9.8)	(9.8)	(9.8)	(29.4)
Elimination of the President Position (Compensation)		(47.5)	(47.5)	(47.5)	(142.5)
Adjust to Overhead[26]		(9.5)	(9.5)	(9.5)	(28.5)
Change in Allocation of Billing and Collection Costs			(184)	(184)	(368)
PwC			(312)[27]	(492)	(804)
Outreach				(24.5)	(24.5)
Adjust tax estimate	(1)	(1)	(1)	(1)	(4)
Cost to Bring the Web site in House			24	24	48
Additional Staff and Miscellaneous Expenses to Process Applications in House			50[28]	50	100
Start up costs for new program				300	300
TOTAL Revised Administrative Costs	**1127.7**	**1098**	**427.5**	**542.9**	**3196.1**
Percent Change	**-**	**(6.4)**	**(54.1)**	**(57.1)**	**(23.6)**

[26] Overhead adjustments are detailed under Option 1.

[27] Assumes a transition to complete the review of first year applications at $60,000 per month.

[28] Assumes four analysts at $35,000 plus overheads. This also assumes a simplified application and invoicing process.

Appendix B

Letter from Mr. Jonathon Linkous

March 4, 1999

Mr. William Kennard
Chairman
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Ms. Cheryl Parrino
CEO
Universal Services Administrative Corporation
583 D'Onofrio Drive
Suite 201
Madison, WI 53719

Dear Chairman Kennard and Ms. Parrino:

The groups indicated below provide these comments regarding the Rural Health Care program that is being administrated by the Universal Services Administrative Corporation (USAC). These groups represent a wide variety of individuals and institutions from across the United States who are involved in the provision of health care, telecommunications services, telehealth and telemedicine. We have a strong interest in the implementation of the Rural Health Care program that maximizes the benefits for patient care in rural America. These comments reflect a level of frustration with the limitations of the program that have become apparent over the first year of implementation.

Our comments are divided into two areas. First, we include proposed actions that can be made by the FCC, which are critical in order to improve the current program operations. These are:

1. The Commission should take steps to notify all approved applications and start the discounts immediately. Current applications now before USAC have been pending for many months. Approvals for these applications have been held up for months for reasons that are not clear. This delay has caused undue hardships on the rural health providers, who are operating on very narrow financial margins already. Continued delay is unconscionable.

2. The application process as it exists today is burdensome, complicated, causes substantial hardship on applicants, and creates a barrier on getting the program benefits out to the intended beneficiaries. The process should be streamlined in two ways.

a. The Commission should reconsider the requirement that all applications are required to enter into a 28-day posting period, at least for areas where there is no existing competition for local service. To date, there have been no competing bids proposed for any application, nor are any competing bids anticipated. The applications are typically for

services to very remote locations where no alternative service providers are available. We understand and sympathize with the desire of the Commission to promote competition. However, this has led to additional delays and costs placed on the backs of rural health care providers and delayed the provision of health services for rural Americans.

b. The Commission should streamline the application process. We suggest that the Commission eliminate the complicated process of requiring the local exchange carrier to make calculations of specific charges to be discounted. Instead a simplified process should be put into effect whereby the approved rural health care provider simply submits their paid phone bill for eligible broad band (T1) services with distance line charges spelled out to USAC. USAC would reimburse the carrier for the discounted distance line charges on the bill. The carrier would pass on the money in the form of a discount on the next bill. The discounts should be based on an average cost for communications services to rural areas versus urban areas in existence for each state.

3. The Commission should consider reimbursement for other costs associated with providing telecommunications services for rural health care that have higher costs for rural areas. Such costs include connection fees for ISDN and switched services, and toll charges for connections to urban areas.

4. The rural health program is supposed to serve public health agencies, which provide essential services to rural communities. However, very few of these agencies currently have applications pending. The Commission should assess the reasons for this non-participation, identify specific program elements needed to increase participation and set targets for improving participation.

Second, we include a set of recommendations that may require statutory amendments to the governing legislation. These are based on the experience gained in the program over the past year where obvious deficiencies have become apparent. Given the current under utilization of estimated funding of the rural health program, the approval of these changes would have minimal impact on the size of the rural health program as originally envisioned. These are:

1. The program should include discounts for all forms of communications services when used in the delivery of health care to rural health care providers. As currently designed, services eligible for the rural health care program are effectively limited to a T1 line, largely because of the use of distance costs associated with this service. However, advancements over the past few years in technology and communications have enabled health care providers to transmit and receive information at speeds lower than that required of T1 lines. Although lower in cost, this still remains an impediment to many health providers due to the few resources available in support of rural health care.

2. The existing regulatory framework requiring additional agreements between multiple local and long distance carriers should be resolved. Establishing links between many applicants and urban centers require crossing LATA boundaries, due to the large distances. The ETC

requirement has either precluded support for rural health care providers or led to unnecessary complications between local and long distance carriers in the development of applications by eligible health providers. Coordination between multiple telecommunication companies requires the rural provider to rely on employees of the companies to help complete forms and develop adjusted rate schedules. This adds time and complexity to the application process.

3. The rural health care program, unlike the school and library program, does not cover associated costs with the establishment of high-speed communications connections. The health care program should be changed to mirror those services that are currently eligible in the school and library program.

4. The rural health care program should be changed to foster collaboration among all eligible institutions where appropriate and allow the rural health provider to collaborate with public health agencies in the implementation of the program. In many rural communities the health care institution and the local school and library are located in very close proximity. However, the programs operated by USAC do not allow a combined effort by health, school, and library facilities. In many areas this leads to unnecessary duplication of communication services. In addition, local public health agencies can be an important partner with the rural health care providers.

5. The program should consider all rural health institutions under the program without regard to tax status as eligible for receiving discounted services. In many areas, particularly the many different Health Professional Shortage Areas, the only health provider serving rural residents does not happen to be a non-profit institution.

6. The legislation ignores three other important health care institutions serving rural America: long-term care facilities, home health agencies and skilled nursing facilities. These facilities should be made eligible for support under the program.

American Telemedicine Association
American College of Nurse Practitioners
Association of Telemedicine Service Providers
National Rural Health Association

USAC
UNIVERSAL SERVICE
ADMINISTRATIVE CO.

REPORT TO THE FCC

BACKGROUND INFORMATION

Evaluation of the Rural Health Care Program

- Customer and Stakeholder Feedback
- Stakeholder Survey Instruments
- Demand Estimate Back Up Calculations

March 5, 1999

UNIVERSAL SERVICE ADMINISTRATIVE COMPANY
RURAL HEALTH CARE DIVISION

Evaluation of the Rural Health Care Program Background Information

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Customer and Stakeholder Feedback on Rural Health Care Program – January-February 1999: Summary of Results in Support of March 1999 Report to FCC

Rural Health Care Providers (RHCPs) Customer Respondent Groups

To reach current customers and potential customers of the Rural Health Care Program (Program), the Rural Health Care Division (RHCD) staff surveyed three distinct rural health care provider groups:

Group 1: RHCPs that have not participated in the Program
Group 2: RHCPs that have submitted Form 465 but not 466
Group 3: RHCPs that have submitted both Form 465 and 466

The surveys were conducted by telephone and represented random samples of all three groups. The survey instruments for Groups 1, 2, and 3 are included as **Attachment A, B, and C**, respectively. Because the universe of respondents for Group 1 was over 18,000, care was taken not to call nonrural locations. A summary of each group is provided separately to distinguish between attitudes and opinions of those with little experience with the Program and those will greatest experience. While all three of the groups interviewed have useful input and information to share, the most experienced group, Group 3, should be given the greatest weight in drawing conclusions about the Program. The sample sizes for Groups 1, 2, and 3 were 14, 18, and 22 respectively. The following summaries are based on statements by the respondents.

Group 1: RHCPs who have not participated in the Program
This group required a great deal of up-front education before the interview questions could be asked. Often RHCD reached the wrong person, but it was obvious in some cases that there was no right person. A number of interviewees were new to their jobs and said that information possibly had been received by their predecessors, but they knew nothing about the Program. Many people in this group wrote down the RHCD's help line number that is staffed by PricewaterhouseCoopers LLP (PwC) employees. About 30 percent refused to be interviewed because of other, more pressing commitments.

The database for this group is made up of over 18,000 records. While selecting facilities for interviews, it was noticeable that approximately 25 percent are urban facilities. Facilities recognized as being in urban areas were not interviewed. An exception was the Mayo Clinic, which gave us a faxed reply.

Group 1 Comments on RHC PROGRAM: Many of those interviewed had not heard of either the Program or the universal service program as a whole. Of the 14 interviews, 5 said they had heard of the Program, 4 had not heard, and 5 did not know.

No one interviewed in this group had used the web site, but several were interested enough to take down the address.

The major barrier for this group is getting the information into the right hands. A second barrier is identifying those barely surviving and finding resources to help them understand the Program and guide them through or provide resources to assess their needs and to handle the application process.

Most respondents have toll free Internet service. Several had Internet service provided by a major hospital that they are affiliated with. One pertinent comment was, "Our Internet service is on a T1 line paid for by Ohio State. Their firewall does not let us bring in attachments from sources beyond their network."

Group 2: RHCPs who have filed Form 465 but not Form 466
This group was outspoken about the need to define the Program to meet the "real needs" of RHCPs. Most of the RHCPs were not going to continue the application process because the services they needed did not qualify for support.

There was no consistency in the response by this group to the RHCD and the application process itself. Those who had spoken with the PwC support staff had high praise for the help they received, but many did not call PwC when they ran into problems and the PwC did not initiate follow-up to see how their clients were progressing.

Few, if any, of the contacts were aware of the web site. Some took down the address and said they would review the site in the near future.

The lack of response from service providers on their Internet postings and the refusal of service providers to file forms on their behalf frustrated a number of Group 2 respondents. Some stated that there is no incentive; others were baffled about what to do next.

Most facilities represented by Group 2 have toll-free access to Internet service.

Group 3: RHCPs who have filed Form 465 and Form 466
This was the most articulate group of interviewees. Their overriding themes were:

- This is potentially a great program.
- The Program needs some modifications based on the realities of rural telecommunications.
- Incentives are needed to encourage service providers to participate in the application process.

Most contacts in this group had high praise for the PwC and had few problems with the application process. There were some misunderstandings about eligibility. Some contacts were aware of the web site, while others were not. Those who had used the web site liked it.

This group's perception of barriers was similar to those expressed by Group 2. An additional concern expressed by this group was the hold up in distribution of funds.

This group had a number of comments pertaining to Internet service. One that was expressed several times was that the provider charged an additional fee for each user making the cost of service prohibitive. Several others stated that there was no access provider who qualified for the subsidy in their area. One respondent commented that the cost of the link to the parent facility (an intraLATA line) needs to be subsidized before the facility can afford a computer for the doctor who would like to have internet access.

Satellite service may provide health care and this technology should be considered. Others suggested that the equipment should be covered

Feedback from Selected Eligible Telecommunications Carriers (ETCs) Involved in Process Development of RHC Program

This group of ETCs was comprised of several telecommunications companies who were actively involved in creating processes for this Program. These companies have spent a significant amount of time to make this project work. They have participated in workgroups and committees with USAC, SLC, and RHCD to develop a feasible plan to integrate their processes into the RHC and SL support programs. On their own, they have met with the FCC (12/17/97 ex-parte) to discuss barriers to success and to present recommended changes to make the Program workable with respect to FCC rules and wording of the Act. They have expended significant time and resources in an effort to make the Program a success.

The eligible telecommunications carrier (ETC) group expressed concerns that the information included in Form 465 is not adequate. They observed that many RHCPs are understaffed and do not have the resources to spend time on the web site or are not using an Internet service provider (ISP). It is unlikely that changes to the Program will reach these RHCPs through the web site. Several RHCPs have spent a full day going through the procedures only to find out that they are not eligible for support or that the amount is not worth pursuing. They questioned how many RHCPs have access to the Internet to take advantage of the web site.

In trying to implement the Program, they have discovered that the original premise of the Program is not valid. The task of balancing rural and urban costs for telehealth is often not a distance-sensitive problem. Many of the telecommunication options are flat rated and the formula does not address that. The communications industry is heading away from "distance sensitivity" and toward a flat rate structure. Mileage sensitivity, which the rules focus on, will not be a factor for long. The Internet is an example of a technology that is not sensitive to distance and now allows for store and forward of telemedical data, and is rapidly approaching a vehicle for real-time telehealth data transmission.

This group believes that competition is not a factor for rural telecommunications services. In most locations there is only one ETC certified by state commissions. There has been almost no response to Form 465 postings by non-incumbent ETCs. This requirement of posting Form 465 for 28 days has complicated the process,

added a 28-day delay to the cycle and has produced no benefit to the RHCPs. One respondent noted: "Rural competition is an oxymoron. RHCD is wasting time and resources by requiring a 28-day Web posting period."

There is also little or no difference between rural and urban rates for certain services. This may be in part attributable to the success of the High Cost Universal Service Program.

Other general comments were directed toward policy barriers. Some respondents believe that there is no difference between rural and urban rates except for the distance-sensitive element. The plan should apply to "for profit" RHCPs. In addition, the rural/urban playing field is essentially level except for those distance sensitive elements. To benefit the RHCPs, this group believes it would help to extend discounts to local service and intraLATA toll.

The ETCs state that the changes that need to be made to RBOC and other large company legacy systems and processes are enormous and very costly. These changes also take a considerable amount of time. The fact that distance sensitivity is often not a factor leads to very little discount for the RHCPs. In addition, handling different types of service has also become a real problem with respect to developing the "urban rate." For instance, a single ISDN line will be more expensive on a per line basis than one line of a group of five for a single location. This problem extends to all services.

The ETC issue still plagues the implementation of service where a LATA boundary is crossed in transit to the nearest city of greater than 50,000. Where the Program can provide the greatest assistance to a RHCP (where a great distance is involved) it is likely that a LATA crossing is involved and the IXC portion in ineligible.

In addition, the administration costs to the ETCs are not recovered through the support credit. Working with the RHCPs is very resource intensive.

Tracking changes to rural and urban rates is a difficult administrative issue according to the respondents. Rate changes are not tracked centrally and the LEC is not aware of urban rates. In addition, while the RHCD is charged with determining urban rates they often rely on the large Telephone Company to do the research. The problem in determining rates is compounded when there are several providers in the same urban area.

There is a perceived problem with RHCPs not hearing back from RHCD or PwC after filing Form 465 (despite the fact that applicants receive confirmation of receipt of Form 465 and a follow-up). Often they are not aware that the next step is theirs. RHCD or PwC should provide a follow-up operation for items missing with a filed form.

The group believed that, the processing for the Schools and Libraries and RHC Programs need to be comparable and more functions should be merged.

The rules and the forms must be simplified. The rules are too complex, too cumbersome, and too hard to understand. The RHCPs do not understand the process and it becomes the task of the telecommunications provider to explain and assist the RHCPs.

The respondents suggested that the FCC should simplify the process for the service provider and RHCPs by allowing a percentage discount, a flat discount amount, or a matrix discount as in Schools and Libraries.

This group indicated that it is anxious for USAC to complete the invoicing requirements. Once the requirements have been finalized, the service providers will have massive changes to their systems to provide the billing the discount to RHCD.

Finally, the group felt that the Program should not be extended to non-telecommunication service discounts. If telemedicine equipment is to be included, it should be under some other program or grant system. The Program should focus on telecommunications service discounts by telecommunications providers.

ETC Focus Group Feedback (Conducted by NTCA, 2/10/99, San Antonio)

Ten persons representing telecommunications carriers attended the NTCA session on Telecommunications Discounts for Rural Health Care Providers presented at the NTCA Annual Meeting and Exposition in San Antonio. All of the ten attendees at the session stayed for the focus group immediately following. This was the last session of the day, and that may have had an effect on the attendance.

Most have had little contact with the rural healthcare providers in their territory. One person was on the local hospital board and had used that position to contact RHCPs. One member of the group had worked with a state committee to involve RHCPs in the Program. One member indicated that a state advisory committee for outreach to the schools and libraries and RHCPs was formed. It was easy to work with the schools and libraries but the RHCPs did not have the same strong advocacy approach.

Local telephone companies may be able to do a better job than the RHCPs in getting all of the information together. The companies should be consulted if changes are make. The other issues identified by this group are comparable to the comments from other providers.

The following issues were identified as barriers: the RHCPs did not want to feel as though they were in competition with healthcare providers in the nearest large city, questions of professional liability with the RHCPs, and patient discomfort with distant doctors.

In the opinion of the focus group, the RHCPs got frustrated because Schools and Libraries got more than the Rural Health Care Program. The RHCPs need

telemedical equipment and infrastructure and the Program does not support those items. The healthcare industry was not as strongly organized as Schools and Libraries; therefore, the advocacy was not as effective.

The group felt that there is no incentive for a small telephone company to offer training or help to a RHCP in filling out forms when the large telephone company doesn't follow through and offer support to its own customer. Uncertain funding from year to year was also cited as an issue.

The group indicated that the rural telecommunications company needs to be the hub of the outreach process.

The group had several recommendations for going forward. First, eliminate the requirement to post the request for services for 28 days since there is not more than one eligible carrier in most areas. The RHCP should fill out the service desired and submit the form to the LEC to complete the balance of the application and submit to the RHCD. Further, if the Alaska solution, or reselling toll, works it should be replicated in the lower 48 states.

The focus group participants pointed out that most rural telecommunications companies already offer local Internet access service but most RHCPs want high speed telemedicine networks.

Feedback from Non-ETCs

RHCD contacted non-ETCs to obtain their input to with respect to their exclusion from the Program and gave them the opportunity to comment on any other issues related to the Program. As the Program stands today, the RHCPs cannot apply for subsidies offered by non-ETCs. The non-ETCs stated that, while there may be some missed opportunity for communications business, Rural Health Care demand is small and any potential revenue would be more than offset by the burdensome procedures and inordinate amount of time and resources to implement and maintain the Program as it is configured today.

The non-ETCs stated that while there may be some missed opportunity for telecommunications business, Rural Health Care demand is small and any potential revenue would be more than offset by the burdensome procedures and inordinate amount of time and resources to implement and maintain the Program.

The non-ETCs did not appear to be concerned with their preclusion from participating in the Program. They hope that, if the rules are changed to include non-ETCs in the Program, they will be invited to participate in the early planning stages of the process prior to any changes to the Act or to FCC rules. They feel that their knowledge of billing processes, business office practices, and customer relations could contribute to an efficient Rural Health Care administration process for all concerned parties.

These comments reflect the difficulties that large non-ETCs have had in modifying their existing billing procedures and establishing new practices for the Schools and

Libraries Program. Indications are that the one-time charges associated with infrastructure for access to the internet by schools and libraries were not unreasonable to deal with, but managing recurring monthly discounts requires incredible resources on the part of the carrier in establishing and maintaining the process.

The smaller non-ETCs see the Rural Health Care Program as a business opportunity, particularly where the distances are great. In these circumstances, expending the resources required by non-ETCs to provide service to RHCPs and to manage the discount process make good business sense. This is particularly true where the potential RHCPs' revenue is significant relative to the non-ETCs' total revenue stream.

However, even if the non-ETC were allowed to participate in the Program to provide the long haul, a LEC would be involved on each end of the circuit, and the LEC would be required to handle the customer and the billing process. This could be a problem in that there is no incentive for the LEC to expend the resources necessary to make a program work when the resource expenditure exceeds associated revenue. Again, the process needs to be simplified, efficient, and equitable.

PwC Interview on RHC Program

Extensive personal interviews with the PwC staff managers demonstrated a thorough and professional approach to the assigned tasks and a thorough knowledge of the Program and issues to be resolved. During the RHCPs interviews, many respondents were complimentary of the PwC staff, mentioning that they were helpful in answering questions.

The PwC views its job as carrying out the application process in a way that meets the terms of the statute and the FCC rules. Areas that are not well defined prompt the PwC to request an interpretation from the RHCD. Often, these requests must be send to the FCC for interpretation. This process takes time. The PwC is not the official liaison with the FCC and relies on the RHCD for this function. Several of the RHCPs survey respondents mentioned that the RHCPs were frustrated in waiting to hear if funds would be available for them. Frequently PwC indicated that it was waiting for an answer from the RHCD or the FCC. This led many respondents to view the Program as very bureaucratic. The ability of PwC to complete its work in a timely manner is totally dependent on the ability of RHCD to work with the FCC in problem resolution. The RHCD has not given PwC the direction to complete the review based on current interpretations. PwC is waiting for the resolution of the outstanding issues.

The PwC has developed and maintains a very complete web site. There have been concerns expressed however, that the web site is not always up to date with the latest information or changes. In some instances, this information is difficult to collect, such as urban and rural rates and 50 lists of all eligible ETCs by state. Information about the Program is included, forms are available and may be downloaded and filed

electronically, and navigation is reasonably easy. Separate areas are provided for RHCPs and for telecommunications carriers. If all forms and worksheets are downloaded along with the instructions, the resulting packet rivals a package of IRS forms and instructions in size. The sheer size and magnitude of the application process from the point of view of the small RHCPs can seem overwhelming and not worth the effort relative to the expected award.

The PwC web site also lists all 465 postings for service. This site is searchable by date of filing, state, and other factors. Each posting consists of the completed 465 Form along with PwC's calculation of the MAD. A telecommunications provider must contact the RHCP directly and PwC is not involved in any negotiations. PwC does not track any bid results. Where local competition has not been initiated, the posting process is not an efficient use of time for either the RHCPs or PwC. A more efficient method of addressing the current competitive situation would be to waive the posting requirement for RHCPs located in an area where no local competition is present. This will speed up the process for the RHCPs and eliminate the "empty" posting process.

PwC mentioned several outstanding issues awaiting resolution before commitment letters could be sent out. Those are the same outstanding issues listed above. Although it would be beneficial and administratively easier to have all of these issues resolved prior to determining the level of commitment and issuing commitment letters, the resolution of these issues is no holding up the issuance of commitment letters. RHCD could issue commitment letters based on current rules and the current interpretation; however, the level of commitment would be lower than if some of the outstanding issues are resolved to the benefit of the RHCPs. The completion of the predisbursement audit and approval of that audit by the FCC Chairman is the impediment to issuing commitment letters at this time. If rules are changed or interpreted differently subsequent to the issuance of a commitment letter, an additional commitment could be made, since there is not a lack of funding.

Starting March 1, 1999, when Form 465 will be accepted for the 1999 plan year, PwC will be handling two plan-years simultaneously. To address this, PwC plans to hire three additional customer service representatives to handle the expected volume of work.

While there is no evidence of ineffectiveness in the contractor's operations, one could conclude that the infrastructure that has been created to handle the Program is more than required by the current size of the operation. The web site created by PwC has been effective in providing information on the Program.

FCC Staff Feedback

An interview with FCC staff identified several issues and concerns about the Program, which were repeated in other contacts. Overall, the primary concerns seem to be the following: the low level of demand, the complexity of the application process, the level of administrative costs given the current level of demand, the lack of follow up with the RHCPs that have posted but have not completed the process,

the working relationship with the RHCD, the lack of communications and information sharing between the RHCD and the staff, and the time it takes to get information.

One of the concerns that appear to affect several of the issues raised was the lack of effective communication between the FCC staff and RHCD staff.

The perception of complexity in the application process is not unfounded. The forms and instructions associated with applying for support may put off a great deal of otherwise qualified applicants. This conclusion is based on RHCPs feedback received during the course of telephone surveys. However, it was also clear that it is important to prevent waste, fraud, and abuse, and to meet the precise intent of Congress and of the FCC rules.

RHCD Staff Feedback

A half-day meeting with the RHCC staff in January provided valuable insight into problems, issues, and barriers. Subsequent telephone conferences added detail and further information. All staff was helpful and forthright in answering questions and providing information both in paper and electronic form.

The President of RHCD, Lee Bailey, provided an extensive summary of the state of telemedicine and telehealth and provided valuable background information. In addition, the following items were identified as issues and barriers by RHCD during the January interview.

The current Program does not justify the money spent on the electronic system. Given the size of the Program and the expected number of applications, there are "cheaper" ways to handle applications. The complexity of the rural-urban rate differential required RHCD and PwC to develop a worksheet so that applicants could provide the information needed to award support. The current forms do not take in to consideration how rates are actually calculated. RBOCs have been helpful in assisting with calculations and, in fact, have spent a significant amount of time on the rate differential calculations.

The RHCD identified a lack of competition as an issue. The RHCD is concerned that, even when competition grows beyond the present level, this Program will not provide enough incentive for IXCs to invest heavily in rural areas.

A major barrier to the success of this Program is the lack of willingness or lack of ability to participate by many of the 1,100 independent local telephone companies. Many of these entities are small and unable to devote time to working with the rural health care providers who may be eligible for support.

The major resource drain for the initial year of the Program has been the calculation of the rural-urban rate differential. The RBOCs provided tariff information on T1 service rates in all major cities, which has to be updated manually each year. For the

other eligible services, comparable rates have to be calculated on a case-by-case basis. Both PwC and RHCD resources were used in addition to those of ETCs.

Without revised interpretations regarding the outstanding issues at the time of the interview in January, RHCD pointed out that there were only 10 to 12 applicants that would qualify for support. The outstanding questions at the time of the interview are noted above.

The RHCD staff also raised communications and the current working relationship with the FCC staff as an issue. The RHCD staff expressed a concern with regard to the amount of time it took to get an answer from the staff.

A policy-related observation offered by RHCD is that the hub-and-spoke system contemplated for this Program is "outdated." The hub-and-spoke system has been sponsored and subsidized by the Federal Government and is not likely to reflect the future growth of telemedicine. Instead, broader network models are more likely to replace the simpler and more limited hub-and-spoke model.

Demand Estimate Backup Calculations

See Attachment D.

Stakeholder Survey—Rural Health Care Providers

Group 1: Have not submitted Form 465

Rural Health Care Provider:_____

Location:_____ **Phone:**_____

Introduction: Hello, my name is (Susan) and I am working for the Rural Health Care Corporation to help them understand how effective their telecommunications support program for telemedicine has been so far. Are you the person who is responsible for telemedicine programs or telecommunications services for your company? **[If no, ask to be redirected.]** Do you have about 10 minutes to answer some questions for our customer survey? Can I have your name in case I need to contact you again to clarify any of your answers?_____

Are you familiar with the Rural Health Care Corporation's Telecommunications Support Program for rural health care providers? **[If familiar, go to Question 1 on the survey. If not, continue with introduction.]**

The Rural Health Care Corporation is part of the Universal Telecommunications Service support program authorized by Congress and designed by the Federal Communications Commission. The mission of the RHCC is to provide grants to support rural health care providers for telecommunications services related to the use of telemedicine or telehealth. The grants apply to monthly telecommunications service charges and installation charges but not equipment costs. The level of support will vary based on your location and the type of service you choose. To find out more about the program or if you may be eligible you can check out their web site: www.rhccfund.org or you can call the Customer Service Center at 1-800-229-5476. Would you still be willing to answer a few questions for me today? **[If so, begin at survey Question 8]**

	Question	Response
1	How did you hear about the Rural Health Care Telecommunications Support Program?	
2	Did you consider applying?	_____1=yes _____2=no
3	Do you know if you qualify for support? [If necessary, probe for: Nonprofit status; rural location; telemedicine program; max bandwidth of 1.544 Mbps; incur long distance internet charges]	_____1=yes _____2=no
4	Do you consider it worthwhile to apply for the funding? Can you give any reasons?	_____1=yes _____2=no **[proceed to Question 8]** Reasons?
5	Why have you not applied for support?	
6	What were the barriers to submitting the application form (465)?	
7	What would make the application process easier for your organization?	

8	Can you think of any ways that the Rural Health Care Corporation might help rural health care providers to learn about the program and obtain support?	_____1=Provide information to trade association _____2=Personal contact _____3=Direct Mail _____4=Internet _____5=Local/Regional conferences _____6=Other_____
9	Do you belong to any rural health care organizations? Other health care organizations?	
10	What telecommunications services do you purchase now?	_____1=POTS (up to 54 kbps) _____2=Switched 56 _____3=ISDN (up to 1152 kbps) _____4=T1 or fractional T1 (up to 1.54 mpbs) _____5=ATM _____6=Other
11	Have you used telemedicine in any way at this or other locations?	_____0=No, Skip to Question 14 _____1=Web-based links to external health information systems _____2=Interactive Video conferencing for consultations _____3=e-mail for "store and forward" data and image attachments (such as x-rays). _____4=Multicast (one-to-many) broadcasting _____5=Audio conferencing _____6=Other_____
12	What types of telemedicine equipment are available at this location?	_____1=Personal computers _____2=Servers _____3=Video Cameras _____4=Monitors _____5=Microphones _____6=Digitizers _____7=Scanners _____8=Document Camera _____9=VRC _____10=Stethoscope _____11=Otoscope _____12=Dermascope _____13=Blood Pressure Monitor _____14=Other_____
13	What transmission services do you use for telemedicine?	_____1=POTS _____2=Switched 56 _____3=ISDN _____4=T1 or Fractional T1 _____5=ATM _____6=Digital TV transmission

14	How many sites does your telemedicine network have?	_____1=Single site _____2=Multiple, number_____
15	It this site a hub or primary site for telemedicine services?	_____1=yes _____2=no
16	Do you have plans to develop more telemedicine programs or to begin a new program?	
17	How large is the staff at this location?	
18	How many doctors are there at this location?	
19	What is the average or typical number of patients seen each day at this location?	
20	What percent of your monthly telecommunications bill is associated with telemedicine?	
21	Do you have internet service at this location?	_____1=yes _____2=no (end of questions)
22	Is your internet service toll free (no separate long distance charge)?	_____1=yes _____2=no

Those are all of my questions. Thanks so much for taking the time to help out the Rural Health Care Corporation. I hope the results of this survey will lead to improved support programs for rural health care providers. Please don't hesitate to call the Customer Service Number (1-800-229-5476) or check out the Web site (www.rhccfund.org) if you want more information about the program. Goodbye.

Stakeholder Survey—Rural Health Care Providers

Group 2: Have submitted Form 465

Rural Health Care Provider:_____

Location:_____ **Phone:**_____

Introduction: Hello, my name is (Susan) and I am working for the Rural Health Care Corporation to help them understand how effective their telecommunications support program for telemedicine has been so far. Are you the person who is responsible for telemedicine programs or telecommunications services for your company? **[If no, ask to be redirected.]** Do you have about 10 minutes to answer some questions for our customer survey? Can I have your name in case I need to contact you again to clarify any of your answers?_____

Are you familiar with the Rural Health Care Corporation's Telecommunications Support Program for rural health care providers? **[If familiar, go to Question 1 on the survey. If not, ask to be redirected.]**

	Question	Response
1	How did you hear about the Rural Health Care Telecommunications Support Program?	
2	Our records show that you have filed Form 465. Do you plan on filing Form 466?	_____1=Yes, When?_____ _____2=No, Reason?_____
3	Do you have any suggestions for improvement in the application process?	
4	Can you think of any ways that the Rural Health Care Corporation might help rural health care providers to learn about the program and obtain support?	_____1=Provide info. to trade assoc. _____2=Personal contact _____3=Direct Mail _____4=Internet _____5=Local/Regional conferences _____6=Other_____
5	Do you belong to any rural health care organizations? Other health care organizations?	
6	What telecommunications services do you purchase now?	_____1=POTS (up to 54 kbps) _____2=Switched 56 _____3=ISDN (up to 1152 kbps) _____4=T1/partial T1 (> 1.54 mpbs) _____5=ATM _____6=Other
7	Have you used telemedicine in any way at this or other locations?	_____0=No, **[Skip to Question 12]** _____1=Web-based links to external health information systems _____2=Interactive video consultations _____3=e-mail for "store and forward" data and image attachments (x-rays). _____4=Multicast (one-to-many) broadcasting

		_____5=Audio conferencing _____6=Other_____
8	What types of telemedicine equipment are available at this location?	_____1=Personal computers _____2=Servers _____3=Video Cameras _____4=Monitors _____5=Microphones _____6=Digitizers _____7=Scanners _____8=Document Camera _____9=VRC _____10=Stethoscope _____11=Otoscope _____12=Dermascope _____13=Blood Pressure Monitor _____14=Other_____
9	What transmission services do you use for telemedicine?	_____1=POTS _____2=Switched 56 _____3=ISDN _____4=T1 or Fractional T1 _____5=ATM _____6=Digital TV transmission
10	How many sites does your telemedicine network have?	_____1=Single site _____2=Multiple, number_____
11	It this site a hub or primary site for telemedicine services?	_____1=yes _____2=no
12	Do you have plans to develop more telemedicine programs or to begin a new program?	
13	How large is the staff at this location?	
14	How many doctors are there at this location?	
15	What is the average or typical number of patients seen each day at this location?	
16	What percent of your monthly telecommunications bill is associated with telemedicine?	
17	Do you have internet service at this location?	_____1=yes _____2=no (end of questions)
18	Is your internet service toll free (no separate long distance charge)?	_____1=yes _____2=no

Those are all of my questions. Thanks so much for taking the time to help out the Rural Health Care Corporation. I hope the results of this survey will lead to improved support programs for rural health care providers. Please don't hesitate to call the Customer Service Number (1-800-229-5476) or check out the Web site (www.rhccfund.org) if you want more information about the program. Goodbye.

Stakeholder Survey—Rural Health Care Providers

Group 3: Have submitted Form 465 and Form 466

Name of RHCP:_____

Location:_____

Introduction: Hello, my name is (Susan) and I am working for the Rural Health Care Corporation to help them understand how effective their telecommunications support program for telemedicine has been so far. Are you the person who is responsible for telemedicine programs or telecommunications services for your company? **[If no, ask to be redirected.]** Do you have about 10 minutes to answer some questions for our customer survey? Can I have your name in case I need to contact you again to clarify any of your answers? _____

Are you familiar with the Rural Health Care Corporation's Telecommunications Support Program for rural health care providers? **[If familiar, go to Question 1 on the survey. If not, ask to be redirected.]**

	Question	Response
1	How did you hear about the Rural Health Care Telecommunications Support Program?	
2	Our records show that you have filed Forms 465 and 466. Is this correct?	_____1=Yes _____2=No
3	Do you have any suggestions for improvements in the application process?	
4	Can you think of any ways that the Rural Health Care Corporation might help rural health care providers to learn about the program and obtain support?	_____1=Provide info. to trade assoc. _____2=Personal contact _____3=Direct Mail _____4=Internet _____5=Local/Regional conferences _____6=Other_____
5	Do you belong to any rural health care organizations? Other health care organizations?	
6	What telecommunications services do you purchase now?	_____1=POTS (up to 54 kbps) _____2=Switched 56 _____3=ISDN (up to 1152 kbps) _____4=T1/Partial T1 (<1.544 mpbs) _____5=ATM _____6=Other
7	Have you used telemedicine in any way at this or other locations?	_____0=No, **[Skip to Question 12]** _____1=Web-based links to external health information systems _____2=Interactive video consultations _____3=e-mail for "store and forward" data and image attachments (x-rays). _____4=Multicast (one-to-many) broadcasting _____5=Audio conferencing

		_____6=Other_____
8	What types of telemedicine equipment are available at this location?	_____1=Personal computers _____2=Servers _____3=Video Cameras _____4=Monitors _____5=Microphones _____6=Digitizers _____7=Scanners _____8=Document Camera _____9=VRC _____10=Stethoscope _____11=Otoscope _____12=Dermascope _____13=Blood Pressure Monitor _____14=Other_____
9	What transmission services do you use for telemedicine?	_____1=POTS _____2=Switched 56 _____3=ISDN _____4=T1 or Fractional T1 _____5=ATM _____6=Digital TV transmission
10	How many sites does your telemedicine network have?	_____1=Single site _____2=Multiple, number_____
11	It this site a hub or primary site for telemedicine services?	_____1=yes _____2=no
12	Do you have any plans to develop more telemedicine programs or to begin a new one?	
13	How large is the staff at this location?	
14	How many doctors are there at this location?	
15	What is the average or typical number of patients seen each day at this location?	
16	What percent of your monthly telecommunications bill is associated with telemedicine?	
17	Do you have internet service at this location?	_____1=yes _____2=no **[end of questions]**
18	Is your internet service toll free (no separate long distance charge)?	_____1=yes _____2=no

Those are all of my questions. Thanks so much for taking the time to help out the Rural Health Care Corporation. I hope the results of this survey will lead to improved support programs for rural health care providers. Please don't hesitate to call the Customer Service Number (1-800-229-5476) or check out the Web site (www.rhccfund.org) if you want more information about the program. Goodbye.

Rural Health Care Division - Demand Estimates Backup Calculations
2/24/99

Assumptions		Source
a. Estimated monthly support amount for T1 packet	$ 555.00	Based on packets processed to date excluding 1 packet for Alaska
b. Estimated monthly support amount for services other than T1 packet	$ 76.00	Based on packets processed to date
c. Estimated % of packets for a T1	65%	Based on packets received to date where service is identified
d. Estimated % of packets for services other than a T1	35%	Based on packets received to date where service is identified
e. Estimated monthly support for each packet	$ 387.35	(a * c) + (b * d)
f. Estimated number of months of support for each packet	7.4	Based on packets processed to date
g. Number of packets processed to date	113	Based on packets processed to date
h. Number of packets in process to date	290	Based on number of packets in process to date
i. Expected increase in # of months of support with new interpretation of contract	5	Average increase in months based on packets in-house
j. % of packets expected to receive retroactive support with new interpretation of contract	85%	Estimate based on cursory review of packets in-house
k. Expected number of packets expected in during 1999 funding year	690	Assumes 15% increase in 1998 packets
l. Estimated number of months of support for 1999 funding year	12	Assumes all HCPs get full year of support
m. Estimated number of packets received between 2/15/99 and 6/30/99	200	Estimate based on current arrival rate to date
n. Total number of packets expected for 1998 for lower 48	603	g + h + m
o. Expected number of packets received from Alaska during 1998	20	Rough estimate based on discussions with Alaska state PUC
p. Estimated monthly support for Alaskan circuits	$ 2,000.00	Rough estimate based on several packets from Alaska
q. Estimated months of support for Alaskan circuits in 1998	3	Rough estimate based on several packets from Alaska
r. Estimated packets for Alaska in 1999	200	Rough estimate
s. % of applicants in lower 48 who are affected by ETC issue	40%	Conservative estimate from Missouri study

Rural Health Care Division - Demand Estimates Backup Calculations
2/24/99

Calculation		Formula
Line 3. Estimated support amount for 290 packets received	$ 831,253.10	e * h * f
Line 4. Estimated support amount for packets received between 2/15/99 and 6/30/99	$ 573,278.00	e * m * f
Line 5. Estimated support increase for RHCPs with existing service acquired under a contract arrangement allowing retroactive support prior to posting	$ 992,681.21	e * i * n * j
Line 6. Estimated support for Alaska 1998	$ 120,000.00	o * p * q
Line 7. 1999 Estimated support for lower 48 states	$ 3,207,258.00	k * e * l
Line 8. 1999 Alaska support	$ 4,800,000.00	p * l * r
Line 9. Estimated increase in support in 1999 if rules change for ETC	$ 1,282,903.20	s * line 7